



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200
Fax 613 632-5246

Print

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO041321	MEC002-VU	1	1	Net 30	MT-4140QT-R2.250	AISI 4140 Quenched & Tempered Steel Round Bar 2.250" Dia. : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT				6	10/19/2018	6		S122005	Stock	10/18/2018	\$ 18.57 / ft	8		\$111.42	Metaux Castile
		2			MT-4140QT-R3.000	AISI 4140 Quenched & Tempered Steel Round Bar 3.000" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT				4		4		S122006	Stock	10/18/2018	\$ 50.92 / ft	8		\$203.68	Metaux Castile
		3			MT-4140QT-R3.250	AISI 4140 Quenched & Tempered Steel Round Bar 3.250" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT						4		S122007	Stock	10/18/2018	\$ 52.18 / ft	8		\$208.72	Metaux Castile

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
		4			MT-4140QT-R5.000	AISI 4140 Quenched & Tempered Steel Round Bar 5.000" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT						4		S122008	Stock	10/18/2018	\$ 110.05 / ft	8		\$440.20	Metaux Castle
Total:												18									\$964.02

Plex 10/26/2018 4:19 PM dart.Tollis.Andrew



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO041321

Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: PO041321
PO Date: 10/11/18
Due Date: 10/19/18

Purchase Order
Revision:

Revision Date:

Ship-To Contact: Phone:

E-MAILED
OCT 11 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1		MT-4140QT-R2.250		AISI 4140 Quenched & Tempered Steel Round Bar 2.250" Dia. : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed	-	10/19/18	6 ft	0 ft	6 ft	\$18.57/ft	\$111.42
2		MT-4140QT-R3.000		AISI 4140 Quenched & Tempered Steel Round Bar 3.000" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT	Firmed	-	10/19/18	4 ft	0 ft	4 ft	\$50.92/ft	\$203.68



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO041321**

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
3 AK		MT-4140QT-R3.250		AISI 4140 Quenched &Tempered Steel Round Bar 3.250" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT	Firmed	-	10/19/18	4 ft	0 ft	4 ft	\$52.18/ft	\$208.72
4 AK		MT-4140QT-R5.000		AISI 4140 Quenched &Tempered Steel Round Bar 5.000" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT	Firmed	-	10/19/18	4 ft	0 ft	4 ft	\$110.05/ft	\$440.20



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO041321

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5		M7075T6S0.375X6.000		7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075- T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 OR MATERIAL: 7075- T6/T62/T65/ ALCLAD ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A- 250/13 OR AMS 4048 / 4049 OR ASTM B209	Firmed	-	11/5/18	24 ft	0 ft	24 ft	\$24.25/ft	\$582.00

Grand Total: \$1,546.02

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit
www.dartaerospace.com for further explanation.

Plex 10/11/18 11:46 AM dart.lavoie.chantal

Chantal Lavoie

From: Desbiens, Marc <mdesbien@amcastle.com>
Sent: Wednesday, October 03, 2018 9:06 AM
To: Chantal Lavoie
Subject: RE: quote

Good Morning Chantal,

price and delivery on mat'l.

24.23
4140QT round bar 2.250" x 6 ft \$ 18.57 Ft 3 days 111.42 145.39
4140QT round bar 3" x 4 ft \$ 50.92 Ft 3 days 152.70 = 64.47 cu.
4140QT round bar 3.250" x 4 ft \$ 52.18 Ft 3 days 208.72 68.08
4140QT round bar 5" x 4 ft \$ 110.05 Ft 3 days 143.60

~~17 4 H900 round bar 2.250" x 12 ft offer cond. A \$ 46.40 Ft 3 days~~

~~17 4 H1150 round bar 15" x 12 ft Is this 1.50" dia?~~

~~304 bar 0.500" x 2 5" x 12 ft Must regret, not available~~

~~6061t6 bar 1.250" x 1.250" x 12 ft \$ 8.18 Ft 8-9 days~~

~~6061t6 bar 1" x 12" x 12 ft \$ 38.62 Ft 8-9 days~~

7075-t6 plate 0.375" x 6" x 24 ft \$ 24.25 Ft 2-3 weeks

31.6437 \$ cu.

Thanks

Marc Desbiens
Inside sales representative
Castle Metals, Montreal, QC
Direct line 514-795-8176
1-800-806-6660 ext 52226
Fax # 1-855-892-6370

Customized Supply Chain Solutions for Your Metal Needs

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Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:3730261

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped 17-OCT-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOULIN	BOL No 3730261-2

Shipment Details

Final Destination Branch - TOR

Order No 5287876	Line No 1	Item No 13783.MO	Description 2.2500.RD.4140.ALLOY.HR.Q & T.SR/SF.A193-B7.216.0000-288.0000 CUT TO 72 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304
Purchase Order No 41321	Part Number	Ordered Qty 1.00 PCS	Invoice Qty 6.0000 FT


Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY

ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S

Email P/s and certs to: clavoie@dartaero.com

END USER: DART AEROSPACE

END USE: COMMERCIAL AIRCRAFT PARTS

Delivery No. 122289420	Mill/Source NUCOR STEEL NEBRASKA	Heat Number  100891119	Mech Id H9921	PCS 1	Width (IN)	Length (IN)	Shipped Qty(LBS) 82.6947
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We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date: OCT 17 2018

Name: SUE KALOUS



26647668

CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327										Customer: A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523													
MANUFACTURER (MILL)					CUST. ORDER NO.																		
NUCOR STEEL NEBRASKA																							
IC	HEAT NO.	MECHANICAL ID			ORDER NO.			SHIP QUANTITY			DATE												
13783	100891119	H9921			11807659			7860			10-JUL-18												
DESCRIPTION OF MATERIAL																							
2.2500.RD 4140 ALLOY HR.Q & T.SR/SF.A193-B7.216.0000-288.0000																							
CHEMICAL ANALYSIS %																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.41	.94	.012	.023	.26	.14	.06	.97	.18	.030														
JOMINY HARDENABILITY Rc																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32
57	57	57	57	57	57	57	55	54	53		50		49		47	46	46		43		41		39
METALLURGICAL																							
MACROETCH						NAFTA		GRAIN SIZE															
S: 1 R: 1 C: 3						YES		5															
CONTINUOUS CAST		REDUCTION RATIO				FROM IC																	
YES		11				14186																	
COUNTRY OF MANUFACTURE		COUNTRY OF MELT																					
United States		US																					
HEAT TREATMENT																							
AUSTENITIZE MINUTES		AUSTENITIZE TEMP °F		TEMPER MINUTES		TEMPER TEMP °F		WATER QUENCH TEMP															
46		1550		54		1220		80															
HARDNESS										MECHANICAL													
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %													
SURF	HBW	300	MID	HBW	299	MID	139528	120547	21.2	61													
SURF	HBW	307				MID	133884	113894	22.4	61.2													
MID	HBW	297																					
CONFORMANT TO SPECIFICATIONS																							
ASTM A29-16 ASTM A193-17 GR B7 ASTM A322-13 ASTM A304-16 ASTM A434-17 CLASS BC ASTM A962-17 ASME SA193 17 ED B7 EN 10204:2004 TYPE 3.1 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17																							

T=136932 Y=117852 E=21.2 RA=61 MID

<p>H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.</p> <p>H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.</p> <p>THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.</p>	<p>NAME: JAN L. CARUSO</p> <p>TITLE: MANAGER OF TECHNICAL SERVICES</p> <p>SIGNATURE: <i>Jan L. Caruso</i></p>
--	---

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140QT-R2-250

PO / BATCH NO.: P0041321/5122005

DATE: 18/10/26

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 2.250"

QUANTITY RECEIVED: 6lt

THICKNESS RECEIVED: 2.250"

QUANTITY INSPECTED: 6lt

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	ASTM A29 (Eng Approved)
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	MT: 100894119
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	(Y) N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>MZee</u>
DATE: <u>18/10/26</u>	DATE: <u>05/26/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327						Customer: A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60052																	
MANUFACTURER (REPUBLIC STEEL)				CUST. ORDER NO.																			
IC	HEAT NO.	MECHANICAL ID	ORDER NO.		SHIP QUANTITY	DATE																	
1907	8297776	H1024	11862263		8125	27-AUG-18																	
DESCRIPTION OF MATERIAL																							
3.0000.RD 4140 ALLOY HR.Q & T.SR/SF.A193-B7.2 288.0000																							
CHEMICAL ANALYSIS %																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.41	.91	.012	.031	.25	.13	.16	.96	.20	.026														
JOMINY HARDENABILITY Rc																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32
58	57	57	57	57	56	56	55	54	53		51		48		47	45	43		41		38		37
METALLURGICAL																							
MACROETCH				NAFTA YES		GRAIN SIZE																	
S: 1 R: 1 C: 1						5																	
CONTINUOUS CAST YES		REDUCTION RATIO 18.4		FROM IC 14199																			
COUNTRY OF MANUFACTURE United States		COUNTRY OF MELT US																					
HEAT TREATMENT																							
AUSTENITIZE MINUTES		AUSTENITIZE TEMP °F		TEMPER MINUTES		TEMPER TEMP °F		WATER QUENCH TEMP															
100		1550		68		1210		80															
HARDNESS						MECHANICAL																	
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %													
SURF	HBW	296	MID	HBW	290	MID	139538	114014	21	61													
SURF	HBW	298				MID	137428	117214	20.4	61.4													
MID	HBW	289																					
CONFORMANT TO SPECIFICATIONS																							
ASTM A193-17 GR B7 ASTM A322-13 ASTM A29-16 ASTM A434-17 CLASS BC ASTM A304-16 ASTM A962-17 ASME SA193-17 ED B7 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17 UNS# G41400 EN 10204:2004 TYPE 3.1																							

3) T:144625 Y:123794 E:19.5 RA:58.2


<p>H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.</p> <p>H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NITELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.</p> <p>THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.</p>	<p style="text-align: center;">RUSO</p> <p>NAME: JAN L. CAIRN TECHNICAL SERVICES</p> <p>TITLE: MANAGER OF</p> <p>SIGNATURE: <i>Jan L. Cairn</i></p>
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A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1


Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Shipment No: 3731490	
Date Shipped 18-OCT-18		F.O.B. ORIGIN		Freight Terms Prepaid		Carrier UPS			
Shipment Details									
Order No 5287876		Line No 2		Item No 1907.MO		Description 3.0000.RD.4140.ALLOY.HR.Q & T.SR. CUT TO 48 IN (+ .1250/- .0000 IN) - ESF.A193-B7.264.0000-288.0000 SPECIFICATIONS: ASTM A304 BAND SAW CUTTING		BOL No 3731490-2	
Purchase Order No 41321		Part Number		Ordered Qty 1.00 PCS		Invoice Qty			
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIM:0000 FT Email P's and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS									
Delivery No. 122291825		Mill/Source		Heat Number  H1024		Mech Id H1024		PCS 1	
						Width (IN)		Length (IN)	
								Shipped Qty(LBS) 98.2270	

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer, cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date Printed: 18-OCT-2018 03:00:28 PM

OCT 18 2018 Date: Name: SUE KALOUS

Signature: 

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140QT-R3.00

PO / BATCH NO.: P0041221/S1202

DATE: 10/10/26

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 3.00"

QUANTITY RECEIVED: 44

THICKNESS RECEIVED: 3.00"

QUANTITY INSPECTED: 44

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	ASTM A29 (ENR Approved)
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	MT: 29776
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>MZee</u>		
DATE: <u>10/10/26</u>	DATE: <u>OCT 26/18</u>		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**Castle Metals®**

A. M. Castle & Co.

**PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 1 of 1


Shipment No:3730261

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped 17-OCT-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOU LIN	BOL No 3730261-2

Shipment Details

Order No 5287876	Line No 3	Item No 33591.MO	Description 3.2500.RD.4140.ALLOY.HR.Q & T.SR/SF.A193-B7.MS.216.0000-288.0000 CUT TO 48 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304
Purchase Order No 41321	Part Number	Ordered Qty 1.00 PCS	Invoice Qty 4.0000 FT

Details
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S
Email P/s and certs to: clavoie@artaero.com
END USER: DART AEROSPACE
END USE: COMMERCIAL AIRCRAFT PARTS

Delivery No. 122289220	Mill/Source TIMKEN STEEL CORPORATION	Heat Number  H9934	Mech Id H9934	PCS 1	Width (IN)	Length (IN)	Shipped Qty(LBS) 115.0748
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We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer, will not be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date: **OCT 17 2018** Name: **SUE KALOUS**

CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327										Customer: A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523													
MANUFACTURER (MILL)										CUST. ORDER NO.													
TIMKENSTEEL CORPORATION																							
IC		HEAT NO.		MECHANICAL ID		ORDER NO.		SHIP QUANTITY		DATE													
33591		W0336		H9934		11807630		7815		16-JUL-18													
DESCRIPTION OF MATERIAL																							
3 2500.RD. 4140 ALLOY.HR.Q & T.SR/SF.A193-B7.MS.216.0000-288.0000																							
CHEMICAL ANALYSIS %																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.40	.96	.008	.020	.22	.22	.12	.99	.21	.030														
JOMINY HARDENABILITY Rc																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32
57	56	56	55	53	55	53	54	54	53		51		47		45	43	41		38		38		36
METALLURGICAL																							
MACROETCH						NAFTA		GRAIN SIZE															
S: 2						YES		5															
R: 2																							
C: 3																							
		REDUCTION RATIO		INGOT CAST		FROM IC																	
		94.5		YES		14808																	
COUNTRY OF MANUFACTURE		COUNTRY OF MELT																					
United States		US																					
HEAT TREATMENT																							
AUSTENITIZE MINUTES		AUSTENITIZE TEMP °F		TEMPER MINUTES		TEMPER TEMP °F		WATER QUENCH TEMP															
7		1550		58		1225		80															
HARDNESS						MECHANICAL																	
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %													
SURF	HBW	307	MID	HBW	316	MID	138277	117332	21.2	62.8													
SURF	HBW	312				MID	125700	103000	20	65.1													
MID	HBW	298																					
CONFORMANT TO SPECIFICATIONS																							
ASTM A193-17 GR B7 ASTM A322-13 ASTM A29-16 ASTM A434-17 CLASS BC ASTM A304-16 ASTM A962-17 ASME SA193-17 ED B7 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17 UNS# G41400 EN 10204:2004 TYPE 3.1																							

3) T:130300 Y:108700 E:21 RA:65.2 4) T:140904 Y:122006 E:20.4 RA:61.1

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1 H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE.MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE) NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.	NAME: JAN L. CARUSO TITLE: MANAGER OF TECHNICAL SERVICES SIGNATURE: <i>Jan L. Caruso</i>
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-414027-3.250
 DATE: 18/10/26

PO / BATCH NO.: P0041321/S122007

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 44
 QUANTITY INSPECTED: 44
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.250"
 THICKNESS RECEIVED: 3.250"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y N	ASTM A29 (ENG Approved)
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y N	MT-W0336
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>ML</u>
DATE: <u>18/10/26</u>	DATE: <u>OCT 28/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE


Page 1 of 1

Shipment No:3730261

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped 17-OCT-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOULIN	BOL No 3730261-2

Shipment Details

Final Destination Branch - TOR

Order No 5287876	Line No 4	Item No 41417.MO	Description 5.0000.RD.4140.ALLOY.HR.Q & T.SR/SF.285/321 BHN.240.0000-288.0000 CUT TO 48 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304		
Purchase Order No 41321	Part Number		Ordered Qty 1.00 PCS	Invoice Qty 4.0000 FT	
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S Email P/s and certs to: clavoie@artaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No. 122289421	Mill/Source TIMKENSTEEL CORPORATION	Heat Number 	Mech Id Q6876	PCS 1	Width (IN)
					Length (IN)
					Shipped Qty(LBS) 272.8513

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

OCT 17 2018

Date: SUE KALOUS



Date Printed: 17-OCT-2018 02:53:23 PM

CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327										Customer: A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523													
MANUFACTURER (MILL)					CUST. ORDER NO.																		
TIMKENSTEEL CORPORATION																							
IC	HEAT NO.	MECHANICAL ID			ORDER NO.			SHIP QUANTITY			DATE												
41417	W2036	Q6876			11862152			8200			29-AUG-18												
DESCRIPTION OF MATERIAL																							
5.0000.RD.4140.ALLOY.HR.Q & T.SR/SF.285/321 BHN.240.0000-288.0000																							
CHEMICAL ANALYSIS %																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.41	.98	.009	.031	.24	.26	.16	.95	.21	.037														
JOMINY HARDENABILITY Rc																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32
59	58	57	56	56	55	55	55	55	55		53				49	46	44		41		40		38
METALLURGICAL																							
MACROETCH						NAFTA		GRAIN SIZE															
S: 2						YES		5															
R: 2																							
C: 3																							
CONTINUOUS CAST		REDUCTION RATIO				FROM IC																	
YES		22				18675																	
COUNTRY OF MANUFACTURE		COUNTRY OF MELT																					
United States		US																					
HEAT TREATMENT																							
AUSTENITIZE MINUTES		AUSTENITIZE TEMP °F		TEMPER MINUTES		TEMPER TEMP °F		WATER QUENCH TEMP															
63		1675		68		1320		95															
HARDNESS										MECHANICAL													
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %													
SURF	HBW	301	MID	HBW	289	MID	126345	99877	20.4	56.4													
SURF	HBW	299																					
MID	HBW	274																					
CONFORMANT TO SPECIFICATIONS																							
ASTM A29-16 ASTM A322-13 ASTM A304-16 ASTM A434-17 CLASS BC UNS# G41400																							

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1. H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL. THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.	NAME: JAN L. CARUSO TITLE: MANAGER OF TECHNICAL SERVICES SIGNATURE: <i>Jan L. Caruso</i>
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT- 4140QT-RS.000

PO / BATCH NO.: P0041321/S121008

DATE: 18/10/26

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 5.000"

QUANTITY RECEIVED: 4ft

THICKNESS RECEIVED: 5.000"

QUANTITY INSPECTED: 4ft

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: ✓

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<u>(N)</u>	
CORRECT FINISH	<u>(Y)</u>	N	
CORROSION	Y	<u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u>	N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u>	N	<u>ASTM A29 (EN6 approved)</u>
CORRECT THICKNESS	<u>(Y)</u>	N	
PHOTO REQUIRED	Y	<u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u>	N	<u>MT-W2026</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u>	N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>(Y)</u>	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>M Lee</u>		
DATE: <u>18/10/26</u>	DATE: <u>OCT 26/18</u>		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in